



EF5A Epoxy Prepreg

EF5A is a 350 °F cure epoxy resin system formulated to produce laminates with mechanical and electrical properties for elevated service temperatures. EF5A prepreg offers short gel time and controlled flow characteristics. This system is flame retardant and exhibits good hot/wet properties. This prepreg material results in high strength and void-free parts when press or autoclave molded. Laminated appearance and structural integrity are excellent. Fiberglass laminates have been successfully used in air frame, tubular and electrical parts as well as radomes. EF5A is certified to meet MIL-I-24768/2, Mil-R-9300B, NEMA FR-5/G-11 and UL-94V-0

Properties of EF5A-7781

Flexural Strength at RT Dry, psi	81,700
Flexural Strength at RT Wet, psi	66,800
Flexural Strength at 310°F, psi	46,300
Flexural Modulus at RT, psi	4,000,000
Flexural Modulus Wet, psi	3,900,000
Flexural Modulus at 310°F, psi	3,400,000
Interlaminar Shear Strength at RT, psi	4,300
Tensile Strength at RT, psi	64,300
Tensile Modulus at RT, psi	3,680,000
Tensile Strain at Failure, %	2.2
Flammability	UL-94V-O
Barcol Hardness (GYZJ935)	75 to 80
Electrical Properties at 1,000,000 Hertz	
Dielectric Constant	5.13
Dissipation factor	0.010
Loss Index	0.051

NOTE: EF5A prepreg, as manufactured, is packaged with an interliner to protect the coated glass and prevent it from adhering to itself. The rolls are sealed in polyethylene film bags to protect prepreg from air, moisture and other contaminants. The bags should remain sealed while the prepreg is under refrigeration and only removed when the prepreg has had sufficient time to warm to room temperature. When not in use, the prepreg should be returned to refrigerated storage. Care should be exercised to limit out-time of the prepreg in order to insure maximum shelf life. Torn bags should be replaced.



EF5

A reduced dielectric constant version of EF5A, EF5 is available for improved performance in radome applications.

Measured at 7.7 GHZ, 38% Resin Content

Dielectric Constant	4.5
Dissipation Factor	0.012

Process Information

- Vacuum Bag in Autoclave and 50 psi pressure
- 5°F/Minute Ramp to 180°F (Part Temperature)
- Hold at 180°F for One (1) Hour
- 5°F/Minute Ramp to 350°F (Part Temperature)
- Hold at 350°F for Two (2) hours
- Cool to Less Than 180°F at 3 to 5°F/Minute
- Release Pressure/Vacuum and Demold

Recommended Storage

- Room Temperature	Ten (10) Days
- 40° F	Three (3) Months
- 0° F	Six (6) Months

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